

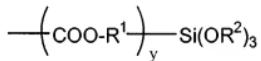
AMENDMENTS TO THE CLAIMS

1-2. (Cancelled)

3. (Previously Presented) A copolymer according to Claim 16, wherein said reactive silicon-containing group is an alkoxy silyl-containing group.

4. (Cancelled)

5. (Previously Presented) A copolymer according to Claim 16, wherein said A has a structure represented by the following formula



wherein, R¹ is an alkylene group having 1 to 10 carbon atoms or an arylene group having 6 to 20 carbon atoms, R² is an alkyl group having 1 to 10 carbon atoms, and y is 0 or 1.

6-7. (Cancelled)

8. (Previously Presented) A copolymer according to Claim 16, wherein said Q is a hydrogen atom, a carboxyl group, an alkoxy carbonyl group having 1 to 9 carbon atoms, an alkyl group having 1 to 8 carbon atoms, an aryl group having 6 to 20 carbon atoms or a halogen atom.

9. (Previously Presented) A method of producing a copolymer according to Claim 16, comprising the step of radical-polymerizing a monomer mixture containing an unsaturated monomer

having a reactive silicon-containing group and an unsaturated monomer compatible with said reactive silicon-containing group by using a macropolymerization initiator having a polycondensation segment.

10. (Previously Presented) A method of producing a copolymer according to Claim 16, comprising the step of radical-polymerizing a monomer mixture containing an unsaturated monomer having a reactive silicon-containing group, an unsaturated macromer having a polycondensation segment and an unsaturated monomer compatible with said reactive silicon-containing group.

11-12. (Cancelled)

13. (Previously Presented) A method of producing an organic-inorganic hybrid polymeric material, comprising the step of hydrolyzing and polycondensing the copolymer according to Claim 16.

14. (Previously Presented) A method of producing an organic-inorganic hybrid polymeric material, comprising the step of hydrolyzing and polycondensing the copolymer of Claim 16 in the presence of a metal, a metal alkoxide compound, a metal oxide, a metal complex or an inorganic salt selected from the group consisting of Si, Ti, Zr, Al, Fe, Cu, Sn, B, Ge, Ce, Ta and W.

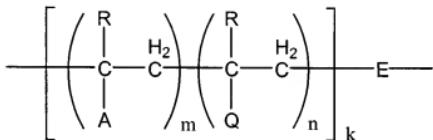
15. (Original) An organic-inorganic hybrid polymeric material produced by the method according to Claim 13 or 14.

16. (Currently Amended) A copolymer comprising:

a polyethylene segment which is a main chain;

a reactive silicon-containing group which is a side group of the polyethylene segment; and

a polycondensation segment bonded to the polyethylene segment, which is a part of the main chain together with the polyethylene segment or a side chain with respect to the polyethylene segment, which comprises a repeating unit represented by the following formula



wherein,

A is a reactive silicon-containing group,

R is each independently a hydrogen atom or an alkyl group having 1 to 8 carbon atoms,

Q is a group compatible with the reactive silicon-containing group,

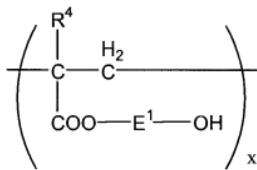
E is a polycondensation segment which is a part of a main chain, or a polyethylene segment having a polycondensation segment as a side-chain;

m is an integer of 1 or more,

n is an integer of 0 or 1 or more,

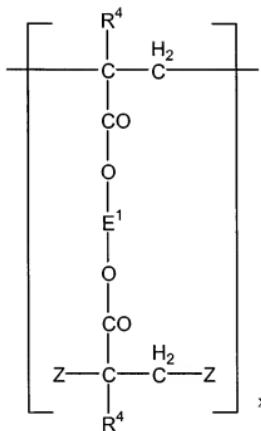
k is an integer of 1 or more, and

E has a structure represented by the following formula



wherein, E^1 is a segment of polycarbonate, polyarylate or polysulfone, R^4 is a hydrogen atom or an alkyl group having 1 to 8 carbon atoms, and x is an integer of 1 or more;

or the following formula



wherein, E^1 , R^4 and x are the same as defined above, and Z is each independently a segment of another polymer.